West of Hatwai Winter 2001-02 Path Capability

West of Hatwai (WoH) winter ratings will be submitted to the WSCC OTC Policy Group (OTCPG) process for approval. Winter limits have already been approved by the NW OPerational Study Group (NOPSG) as of September 10, 2001. Approval of the WSCC OTC Policy Group is still required. In the course of studies, additional winter restrictions have been found for a fault on the middle bus at Bell Substation. BPA has therefore embarked on immediate actions to install equipment and add RAS to decrease the impact of this contingency. These are targeted for completion by November 1, to coincide with the beginning of the winter season and are assumed to be in service in determining the winter limits.

The limit listed below is the proposed but not yet approved rating.

These draft winter WoH limits are based on the need to stay within all transmission line thermal limits after a contingency and they assume the ability to trip generation at Libby, Dworshak, Noxon (if W. MT Hydro exceeds 1300 MW) and Colstrip (1 large unit) as needed.

West of Hatwai (WoH) Limits are as follows:

Ambient Temp. at Bell substation (Spokane)	Base capability with no RAS	Maximum capability with RAS	Limit based on
0° C (32° F)	2500 MW	2800 MW	Loss of Taft-Dworshak 500kV loads Bell-Coulee 230kV #3

The Operational Transfer Capability (OTC) is determined by adding to the base capability above the amount of generation that can be tripped at plants multiplied by each plant's sensitivity factor. The equation is:
WOH OTC = Base capability + 0.5 (Miles) + 0.5 (Colstrip) + 0.6 (Libby) + 0.6 (Noxon) + 0.7 (Lancaster)

Power Source Facility	Maximum Output (MW)	Sensitivity
Noxon Rapids	564	0.6
Libby	635	0.6
Dworshak	482	0.8
Lancaster	270	0.7
Colstrip	2200 (lg. unit about 800)	0.5

Real time limits are calculated continuously based on actual conditions to assure operation within the reliability limits. Generator dropping is armed based on actual West of Hatwai flows reaching the level where dropping is required.

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